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FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE

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## BIRD CONTROL IN FOREST NURSERIES

Bird depredations in southern forest nurseries can be stopped with repellents developed for use in direct seeding. At the Stuart Nursery, near Pollock, Louisiana, such repellents have protected loblolly, slash, and longleaf seed both before and during germination. Shotgun patrols and other bird-scaring measures are no longer needed.

Sublimed anthraquinone appears to be the best repellent. It gives good protection and has little or no effect on germination. Arasan and Arasan-75 are also good repellents, but they reduce germination from 5% to 10%.

Dow Latex 512-R, developed by the U. S. Fish and Wildlife Service, is recommended as a sticker, with asphalt emulsion as a second choice. Latex-treated seeds have a smoother surface than those coated with asphalt, and feed through the seed drill more uniformly.

Anthraquinone should be applied at the rate of 15 pounds to 100 pounds of seed. The sticker is made by diluting 1 part of Latex to 9 parts of water, by volume. Instructions for coating seed are given in Tree Planters' Notes No. 20, June 1955. --W. F. Mann, Jr., and C. E. Kingsley.

## LONGLEAF SEEDLINGS ENLIVE MODERATE GRAZING

On a forest range in southern Alabama, moderate grazing by cattle did not interfere with the establishment and first-year survival of longleaf pines.

Seed fell and germinated in the late autumn of 1955. The 3,000-acre tract is grazed yearlong, but not heavily. The average in 1956 was 50 cows, or one to 60 acres. Forage utilization averaged 22%. The seedling catch was measured on pairs of 4-milacre plots: one plot of each pair was fenced to keep cattle out and the other was left open. In March 1956, 71% of the fenced milacres and 73% of the unfenced milacres had one or more seedlings. By 1957, after a year of grazing, seedlings were found on 62% of the fenced milacres and 59% of the open ones.

The results suggest that, if cattle are carefully controlled, they need not be excluded from regeneration areas during the establishment and first growing season of longleaf seedlings. The effects of grazing before seedfall and after the seedlings' first year are still under study. --  
Wm. D. Boyer.

## SEPTEMBER RAINS BRING PINE GROWTH GAINS

With enough moisture, forests can make excellent growth late in the season. Weekly measurements of a pine stand near Crossett, Arkansas, showed that 30% of the 1957 growth followed a thorough soil-moisture recharge by unusual September rains. In most years soil moisture becomes so low by the end of August that pine forests in south Arkansas stop growing nearly 3 months before frost.

Dendrometer bars installed in a well-stocked 20-year-old loblolly pine stand indicated that diameter growth had ceased by late summer in 1957. From March 1 to August 15 this stand had grown 140 cubic feet of wood per acre, and it appeared that this would be the total for 1957.

On September 1, the rains came. By the end of the month more than 10 inches had fallen. Diameter growth responded immediately and continued through October at a rate equalling that of April and May. Result: the average tree grew an additional 0.15 inch in diameter, which added 60 cubic feet of wood per acre to the year's growth. --  
Robert Zahner.

#### RELEASE DOUBLES SHORTLEAF SEEDLING GROWTH

On Tennessee's Cumberland Plateau, underplanted shortleaf pine seedlings released from low-grade hardwoods grew twice as fast the first season as did unreleased seedlings.

The unreleased seedlings added 3.4 inches to their height the first year. Where the hardwoods had been cut off or girdled, the pines grew 5.8 inches. Better still, by a significant margin, was the 8.3 inches of height added by seedlings where the hardwood stumps and girdles had been treated with 2, 4, 5-T (1 gallon of 4 lbs. acid equivalent to 25 gallons of diesel oil).

Release, while stimulating growth, had no significant effect on survival. About 92% of the seedlings lived through the first season, even though rainfall from May through August was only 56% of normal. Rodents and rabbits caused considerable damage. Of the seedlings they chewed

off, 44% died (these accounted for nearly one-third of all seedling losses); the rest sprouted and lived on. --T. A. Harrington.

### RECENT PUBLICATIONS

- \*Avery, G. *Forester's guide to aerial photo interpretation*. Occasional Paper 156, 41 pp.
- \*Campbell, R.S. *Grazing in southern pine forests*. Proceedings, 1957 LSU Forestry Symposium, pp. 13-20.
- \*Ferguson, E.R. *Response of planted loblolly pines to reduction of competition*. Journal of Forestry, January 1958, pp. 29-32.
- Grano, C.X. *Growth of loblolly pine seed trees in relation to crown density*. Journal of Forestry, November 1957, p. 852.
- \*Grano, C.X. *Indices to potential cone production of loblolly pine*. Journal of Forestry, December 1957, pp. 890-891.
- \*Henry, B. W. *Bettering nature's best*. Forest Farmer, November 1957, pp. 10-11.
- \*Henry, B.W., and Hepting, G.H. *Pest occurrences in 35 of the Southwide Pine Seed Source Study plantations during the first three years*. 7pp.
- \*Holt, W.R. *Controlling the Texas leaf-cutting ant*. Southern Forest Pest Reporter 19, 4 pp.
- \*Johnston, H.R., Smith, R.H., and St. George, R.A. *Control of Lyctus powder-post beetles in lumber yards and processing plants*. Pest Control, January 1958, pp. 39-42.
- \*Mann, W.F., Jr. *Direct-seeding the southern pines*. Forest Farmer, November 1957, pp. 8-9, 12, 16-18.
- \*Mignery, A.L. *Forest research expanded at Sewanee*. Southern Lumberman, October 15, 1957, pp. 32-33.
- \*Morris, R.C. *Hardwood insect problems in the Delta*. Proceedings, 1957 LSU Forestry Symposium, pp. 100-103.
- \*Schomaker, C.E. *Two-year results of planting yellow-poplar in north Alabama*. Journal of Forestry, January 1958, pp. 37-38.
- \*Southern Forest Experiment Station. *Summary of Midsouth pest conditions in 1957*. Southern Forest Pest Reporter 20, 10 pp.
- Sternitzke, H.S. *Audrey's timber toll*. Forests and People, Fourth Quarter 1957, p. 51.
- \*Thatcher, R.C. *Preventing pales damage to pine reproduction*. Proceedings, 1957 LSU Forestry Symposium, pp. 112-120.
- \*Verrall, A.F. *Absorption and penetration of preservatives applied to southern pine wood by dips or short-period soaks*. Occasional Paper 157, 31 pp.
- \*Woods, F.W., and Shanks, R.E. *Replacement of chestnut in the Great Smoky Mountains of Tennessee and North Carolina*. Journal of Forestry, November 1957, p. 847.

In SOUTHERN LUMBERMAN, December 15, 1957.

- \*Derr, H.J., and Enghardt, H. *Some forestry lessons from Hurricane Audrey*. Pp. 142-144.
- \*Harrington, T.A. *Making big if's smaller in direct seeding*. Pp. 129-130.
- \*Maisenhelder, L.C. *Tips for planting southern hardwoods*. Pp. 93-94.
- \*Pleasanton, A. *Upland hardwood management appeals to west Tennesseans*. Pp. 108-110.
- \*Scheer, R.L. *Sand pine--scrub or timber tree?* Pp. 191-193.
- \*Stephenson, G.K. *Hold that raindrop!* Pp. 162-164.
- \*Wakeley, P.C. *Forest tree-improvement work in the South*. Pp. 126-129.